



Johnson Matthey  
Inspiring science, enhancing life

# Reinvigorating Johnson Matthey to drive value creation

Strategic update and results for year ended 31<sup>st</sup> March 2022  
26<sup>th</sup> May 2022

# Cautionary statement

This presentation contains forward-looking statements that are subject to risk factors associated with, amongst other things, the economic and business circumstances occurring from time to time in the countries and sectors in which Johnson Matthey operates. By their nature, forward-looking statements involve uncertainty because they depend on future circumstances, and relate to events, not all of which are within Johnson Matthey's control or can be predicted by Johnson Matthey. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a wide range of variables which could cause actual results to differ materially from those currently anticipated and you should therefore not place reliance on any forward-looking statements made. No part of this presentation constitutes, or shall be taken to constitute, an invitation or inducement to invest in Johnson Matthey or any other entity, and must not be relied upon in any way in connection with any investment decision. Johnson Matthey undertakes no obligation to update forward-looking statements contained in this document or any other forward-looking statement it may make.

# Today's agenda

- 01** Financial results
- 02** Our reinvigorated strategy
- 03** Capital allocation framework
- 04** Next steps
- 05** Q&A

# Today's agenda

## 01 Financial results



# Strong financial foundations

## Robust underlying performance<sup>1</sup>

- Sales up 5%
- Operating profit up 21%
- Earnings per share of 213.2p, up 26% from 168.9p

## Reported results adversely impacted by one-offs

**Efficiency programme** targeting £100m<sup>2</sup> savings by 2023/24 largely complete

## Strong balance sheet

- Free cashflow of £221m
- Net debt of £856m
- Net debt to EBITDA:1.2x

Full year dividend of 77.0p per share, **up 10%**

Changes to **reporting structure**

1. 2020/21 is restated to reflect the group's updated reporting segments and removal of inter-segment copper zeolite sales in Efficient Natural Resources as well as the classification of Health as a discontinued operation. 2. Annualised benefits by 2023/24 exclude £10m relating to Health.

Note: Sales, operating profit and earnings per share are underlying measures - before profit or loss on disposal of businesses, gains and losses on significant legal proceedings together with associated legal costs, amortisation of acquired intangibles, major impairment and restructuring charges and, where relevant, related tax effects. Comparator period is 2020/21.

# Group sales driven by Clean Air and Efficient Natural Resources

Underlying sales for full year ended 31 <sup>st</sup> March	2022 £m	2021 <sup>1</sup> £m	% change, constant FX rates
Clean Air	2,457	2,412	+5
Efficient Natural Resources	1,041	974	+9
Other Markets	379	412	-4
Eliminations	(99)	(113)	
<b>Continuing operations</b>	<b>3,778</b>	<b>3,685</b>	<b>+5</b>
Health (discontinued operations)	162	237	-29
<b>Total sales</b>	<b>3,940</b>	<b>3,922</b>	<b>+3</b>

1. 2020/21 is restated to reflect the group's updated reporting segments and removal of inter-segment copper zeolite sales in Efficient Natural Resources as well as the classification of Health as a discontinued operation. Advanced Glass Technologies and Battery Materials treated as continuing operations.

Note: Sales in Health (2021/22: £163m), Advanced Glass Technologies (2021/22: £62m), Battery Materials (2021/22: £12m).

# Improved performance in Clean Air and Efficient Natural Resources

Underlying operating profit for full year ended 31 <sup>st</sup> March	2022 £m	2021 <sup>1</sup> £m	% change, constant FX rates
Clean Air	302	269	+17
Efficient Natural Resources	358	276	+33
Other Markets	(21)	1	n/a
Corporate	(86)	(73)	
<b>Continuing operations</b>	<b>553</b>	<b>473</b>	<b>+21</b>
Health (discontinued operations)	3	31	-90
<b>Total operating profit</b>	<b>556</b>	<b>504</b>	<b>+14</b>

# Clean Air: partial recovery in demand

Underlying results for full year ended 31 <sup>st</sup> March	2022 £m	2021 £m	% change, constant FX rates
Light duty diesel	1,005	1,017	+2
Light duty gasoline	574	624	-7
Heavy duty diesel	878	772	+17
<b>Total sales</b>	<b>2,457</b>	<b>2,412</b>	<b>+5</b>
<b>Operating profit</b>	<b>302</b>	<b>269</b>	<b>+17</b>
<b>Margin</b>	<b>12.3%</b>	<b>11.2%</b>	

## Sales increased 5%

- Partial recovery in end market demand
- Supply chain disruption, principally semi-conductor chips
- Strong growth in US Class 8 HDD
- China VI HDD legislative benefits
- LDG weaker due to previous platform losses

## Operating profit increased 17%

- Operational leverage and efficiencies
- Margin increased to 12.3%

## Strong cash generation of around £800m<sup>1</sup>

1. Targeting at least £4bn of cash under our range of scenarios from 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2031. Cash target pre-tax and post restructuring costs. In 2021/22, delivered around £800 million of cash at actual precious metal prices, which equates to just over £600 million at constant prices (March 2021).

# Efficient Natural Resources: strong performance

Underlying results for full year ended 31 <sup>st</sup> March	2022 £m	2021 <sup>1</sup> £m	% change, constant FX rates
PGM Services	587	531	+13
Catalyst Technologies	454	443	+5
<b>Total sales</b>	<b>1,041</b>	<b>974</b>	<b>+9</b>
PGM Services	308	244	+28
Catalyst Technologies	50	32	+67
<b>Operating profit</b>	<b>358</b>	<b>276</b>	<b>+33</b>
<b>Margin</b>	<b>34.4%</b>	<b>28.3%</b>	

## Sales increased 9%

**PGM Services** – primarily higher average PGM prices

## Catalyst Technologies:

- Primarily higher refills
- Licensing and first fills lower; pipeline remains strong

## Operating profit increased 33%

### PGM Services

- Higher average PGM prices (c. +£45m)
- Reduced trading activity

### Catalyst Technologies

- Recovery in refills
- Impairments in prior year
- Russia impact

# Other Markets: investing in our new growth businesses

Underlying results for full year ended 31 <sup>st</sup> March	2022 £m	2021 <sup>1</sup> £m	% change, constant FX rates
New Markets	37	55	-33
Value Businesses	342	357	+1
<b>Total sales</b>	<b>379</b>	<b>412</b>	<b>-4</b>
<b>New Markets</b>	<b>(55)</b>	<b>(22)</b>	<b>n/a</b>
– Hydrogen Technologies	(33)	1	n/a
– Battery Materials	(22)	(23)	-4
<b>Value Businesses</b>	<b>34</b>	<b>23</b>	<b>+55</b>
<b>Operating loss</b>	<b>(21)</b>	<b>1</b>	<b>n/a</b>

Note: Value Businesses includes Battery Systems, Medical Device Components, Diagnostic Services, Advanced Glass Technologies. 1. 2020/21 figures restated following change to reporting segments.

2. Advanced Glass Technologies sale completed on 31<sup>st</sup> January 2022 for a total consideration of £178m, resulting in a profit on sale in excess of £100m.

## New Markets

### Hydrogen Technologies (Fuel Cells and Green Hydrogen)

Sales of £25m, down on prior year:

- Manufacturing constraints as scale up business and use capacity for customer qualification
- First Green Hydrogen sales (April 22)

Increased investment to support growth

### Value Businesses – non core

Sales broadly flat despite disposal of Advanced Glass Technologies (AGT)

- AGT sold for £178m<sup>2</sup>

# Underlying performance

Underlying results for year ended 31 <sup>st</sup> March <sup>1</sup>	2022 £m	2021 £m	% change	% change, constant FX rates
Sales excluding precious metals (sales)	3,778	3,685	+3	+5
Operating profit	553	473	+17	+21
Finance charges	(60)	(85)		
<b>Profit before tax</b>	<b>493</b>	<b>388</b>	<b>+27</b>	<b>+32</b>
Taxation	(86)	(62)		
<b>Profit after tax</b>	<b>407</b>	<b>326</b>	<b>+25</b>	<b>+33</b>
<b>Underlying earnings per share</b>	<b>213.2p</b>	<b>168.9p</b>	<b>+26</b>	
<b>Ordinary dividend per share</b>	<b>77.0p</b>	<b>70.0p</b>	<b>+10</b>	

# Reported results adversely impacted by one-offs



Year ended 31 <sup>st</sup> March	2022 £m	2021 £m
<b>Underlying operating profit</b>	<b>553</b>	<b>473</b>
Major impairment and restructuring charges <sup>1</sup>	(440)	(154)
Gains and losses on significant legal proceedings <sup>2</sup>	42	-
Disposal of Advanced Glass Technologies	106	-
Amortisation of acquired intangibles	(6)	(10)
<b>Reported operating profit</b>	<b>255</b>	<b>309</b>
<b>(Loss) / profit after tax from discontinued operations</b>	<b>(217)</b>	<b>11</b>
<b>Reported earnings per share from continuing operations</b>	<b>60.9p</b>	<b>100.9p</b>
<b>Reported (loss) / earnings per share</b>	<b>(52.6p)</b>	<b>106.5p</b>

1. Includes £363m impairment and restructuring costs following our exit from Battery Materials, £32m relating to the discontinuation of our Clean Air and Catalyst Technologies activities in Russia, and a £45m impairment of goodwill in Diagnostic Services. (2020/21: £154m major impairment and restructuring charges incurred in relation to organisational efficiency initiatives).

2. Includes £44m awarded to JM in relation to damages and interest from a company found to have unlawfully copied one of JM's technology designs and a £6m gain relating to Battery Materials, partly offset by an £8m charge for environmental and other costs.

# Free cash flow and net debt

## Free cash flow from continuing operations (£m)

Year ended 31 <sup>st</sup> March	2022	2021
Underlying operating profit from continuing operations	553	473
Depreciation and amortisation <sup>1</sup>	173	164
Impairments	3	31
– Precious metal working capital inflow	23	-
– Non precious metal working capital (outflow) / inflow	(133)	212
Net working capital (outflow) / inflow	(110)	212
Net interest paid	(76)	(90)
Tax paid	(105)	(69)
Capex spend	(422)	(347)
Net proceeds from disposal of businesses	160	-
Other <sup>2</sup>	45	(79)
<b>Free cash flow from continuing operations</b>	<b>221</b>	<b>295</b>
<b>Net debt at the end of the period</b>	<b>(856)</b>	<b>(770)</b>
<b>Net debt to EBITDA<sup>3</sup></b>	<b>1.2x</b>	<b>1.3x</b>

Note: Short-term metal leases amounted to £140m as at 31<sup>st</sup> March 2022 (31<sup>st</sup> March 2021: £437m).

1. Excluding amortisation of acquired intangibles, including loss on sale of non-current assets.

2. Includes restructuring cash costs, lease payments, disposal of businesses and movements in pensions and provisions.

3. Net debt including post tax pension deficits. Shown on a continuing basis.

# Outlook for year ending 31<sup>st</sup> March 2023

## Group

- Greater political and economic uncertainty
- Performance will correlate closely to levels of auto production and PGM prices
- Clean Air – demand robust although supply chain disruption constraining volumes
- PGM Services – high and volatile PGM prices
  - c.£25m<sup>1</sup> adverse impact if PGM prices remain at current levels<sup>2</sup> for rest of year
- Performance weighted towards 2H

## FX

c.£25m benefit to underlying operating profit at current FX rates<sup>3</sup>

## Outlook

Currently expect operating performance to be in the lower half of consensus range<sup>4</sup>

1. A \$100 change in the average annual platinum, palladium and rhodium metal prices each have an impact of c.£1m, £1.5m and £1m respectively on full year underlying operating profit.

2. Based on average precious metal prices in May 2022 (month to date). 3. Based on foreign exchange rates in May 2022 (month to date).

4. Vara consensus for full year group underlying operating profit in 2022/23 was £562 million (range: £491 million to £641 million) as at 25<sup>th</sup> May 2022. 2021/22 group underlying operating profit on an adjusted basis was £559 million (adjusted for disposals of Health, Battery Materials and Advanced Glass Technologies).

# Today's agenda

## 02 Our reinvigorated strategy





The future of JM is bright  
and sustainable ...  
with really exciting  
future opportunities

The future of JM is bright  
and sustainable ...  
with really exciting  
future opportunities

**but significant change is needed**





Purpose-driven

Talented and innovative people

Strong technology portfolio

Synergies across the group

Purpose-driven

Talented and innovative people

Strong technology portfolio

Synergies across the group

Lack of strategic clarity

Complex and siloed organisation

Execution challenges

## Our reinvigorated strategy needs to drive growth through

- ~~Lack of strategic clarity~~ → **Focus** – understanding where we have a right to win and then playing to win
- ~~Complex and siloed organisation~~ → **Simplify** – driving leaner processes, less bureaucracy and a more efficient way of working to reduce cost and drive growth
- ~~Execution challenges~~ → **Execute** – strengthening core capabilities such as capital execution and commercialisation and building a high-performance culture

# My new leadership team



**Stephen Oxley**  
Chief Financial  
Officer



**Alastair Judge**  
Chief Executive,  
PGM Services



**Anish Taneja**  
Chief Executive,  
Clean Air



**Jane Toogood**  
Chief Executive, Catalyst  
Technologies



**Mark Wilson**  
Chief Executive, Hydrogen  
Technologies



**Mark Su**  
President, China



**Annette Kelleher**  
Chief HR  
Officer



**Maurits van Tol**  
Chief Technology  
Officer



**Ron Gerrard**  
Chief EHS and  
Operations Officer



**Christian Günther**  
Chief Strategy and  
Transformation  
Officer

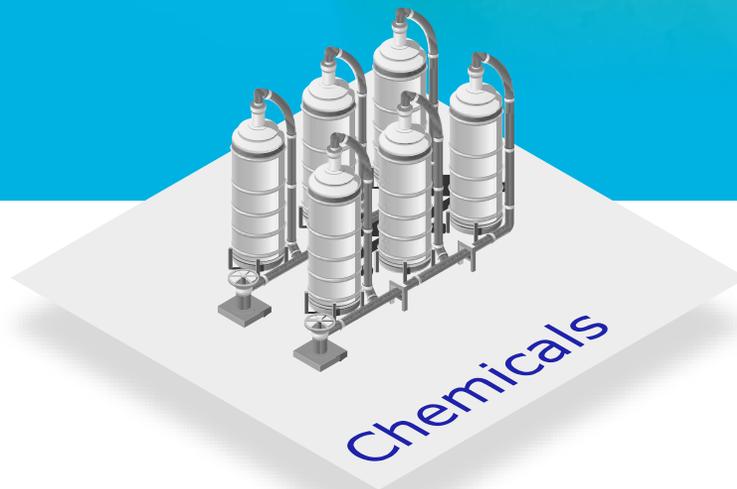
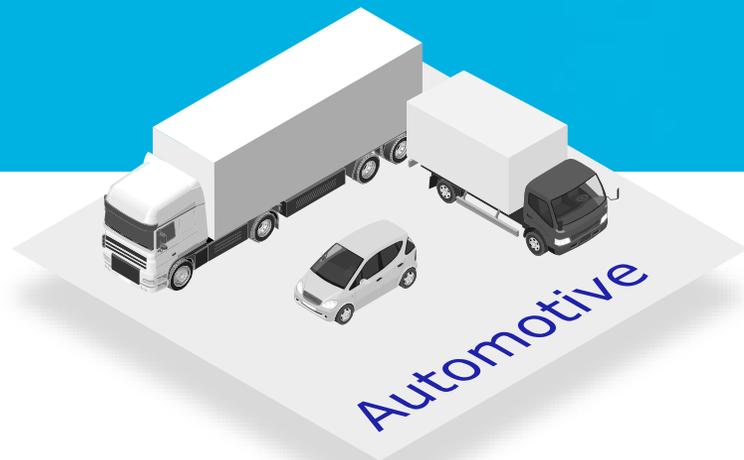


**Anne Chassagnette**  
Chief Sustainability  
Officer

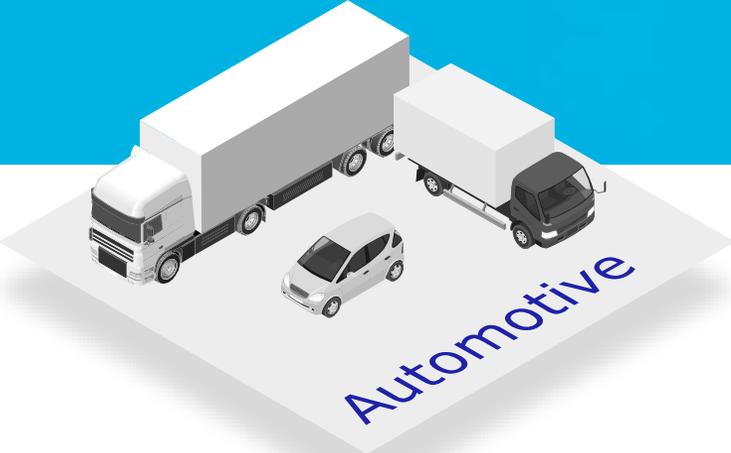


**Nick Cooper**  
General Counsel and  
Company Secretary

# Catalysing the net zero transition for our customers



# Catalysing the net zero transition for our customers



**1.8-3.0m**

new sales of fuel cell heavy duty and light duty vehicles in 2030



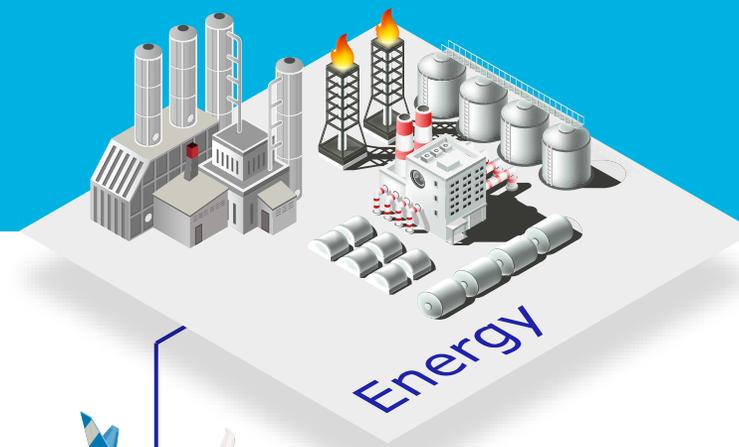
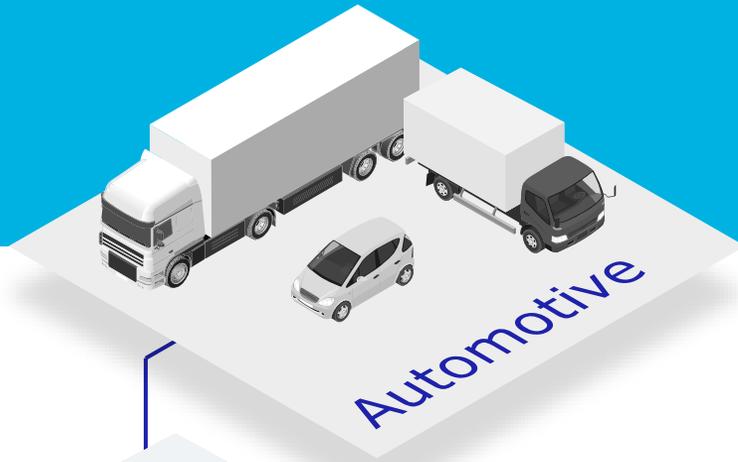
**c.30%**

decrease in emission intensity by 2030 required to reach net zero trajectory in chemicals production



**7 to 9x**

increase in sustainable fuels demand by 2040



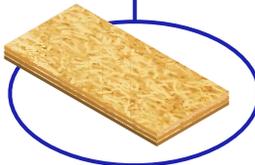
Emission control systems



Components for fuel cells



Sustainable methanol and ammonia technology



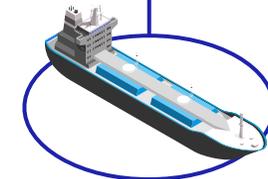
Sustainable formaldehyde technology



Low carbon solutions



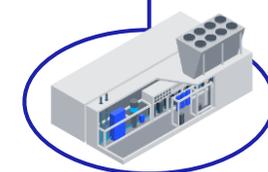
Sustainable fuels technology



Sustainable methanol and ammonia technology

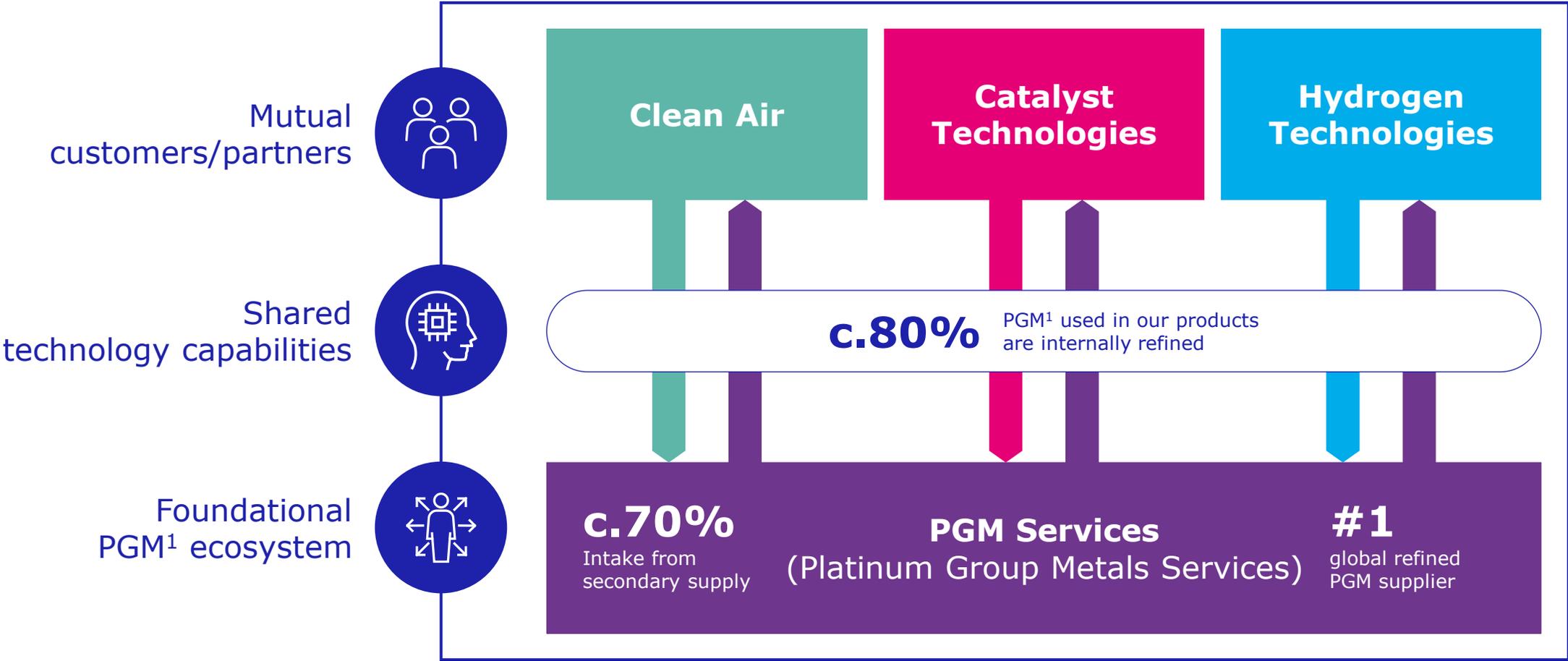
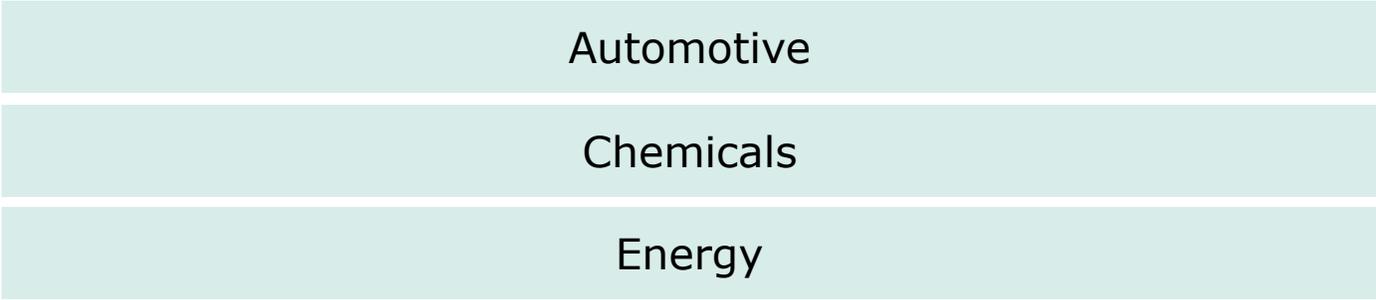


Blue hydrogen technology



Components for green hydrogen electrolyzers

**Key markets**



## Our vision

A world that is cleaner and healthier – today and for future generations

## Our aspiration

is to lead across our four businesses

### Clean Air

Leading in autocatalyst markets

### Catalyst Technologies

#1 in syngas-based chemicals and fuels technology

### Hydrogen Technologies

Market leader in performance components for fuel cells and electrolysers

### PGM Services (Platinum Group Metals Services)

#1 recycler of PGMs<sup>1</sup>

# We reaffirm our ambition to be a sustainability leader...

**Signed up** to the UN Global Compact's Business Ambition for 1.5°C

**Science-based targets** independently verified by SBTi

**Reduce our scope 1 and 2 GHG emissions** by 33% by 2030<sup>1,3</sup>

**Reduce our Scope 3 GHG emissions** by 20% by 2030<sup>2,3</sup>

**Catalysing the net zero** transition for our customers, with **50m tonnes of GHG emissions** avoided by our customers utilising our technology by 2030

Note: GHG is greenhouse gas. SBTi – Science Based Targets initiative.

1. Scope 1 covers direct greenhouse emissions from facilities under our financial control. Scope 2 covers indirect emissions from purchased electricity, steam, heating and cooling.
2. Scope 3 target is purchased goods and services category only.
3. Baseline year is 2019/20 for both targets.

...and are being recognised by leading industry organisations



**Platinum** rated



FTSE4Good

**4.1** out of 5

Member of  
**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA

**92<sup>nd</sup>** top percentile

**MSCI** 

**AAA** rated

A closer look at  
**PGM Services**

# We are the leading recycler and metal hub of precious metals, with c.£550m in sales

**PGMs are high demand precious metals ...**

-  Palladium
-  Platinum
-  Rhodium
-  Iridium
-  Ruthenium



**... critical enablers for current and emerging applications**

- Autocatalysts 
- Industrial applications 
- Fuel cells 
- Green hydrogen technologies 

**Example partners**

-  **Sibanye Stillwater** we are one
-  **TECHEMET**<sup>®</sup>
-  **multimetco**
-  **MASTERMELT GROUP OF COMPANIES**

**#1**

global refined PGM supplier

**#1**

secondary recycler

**c.2x**

capacity of nearest competitor

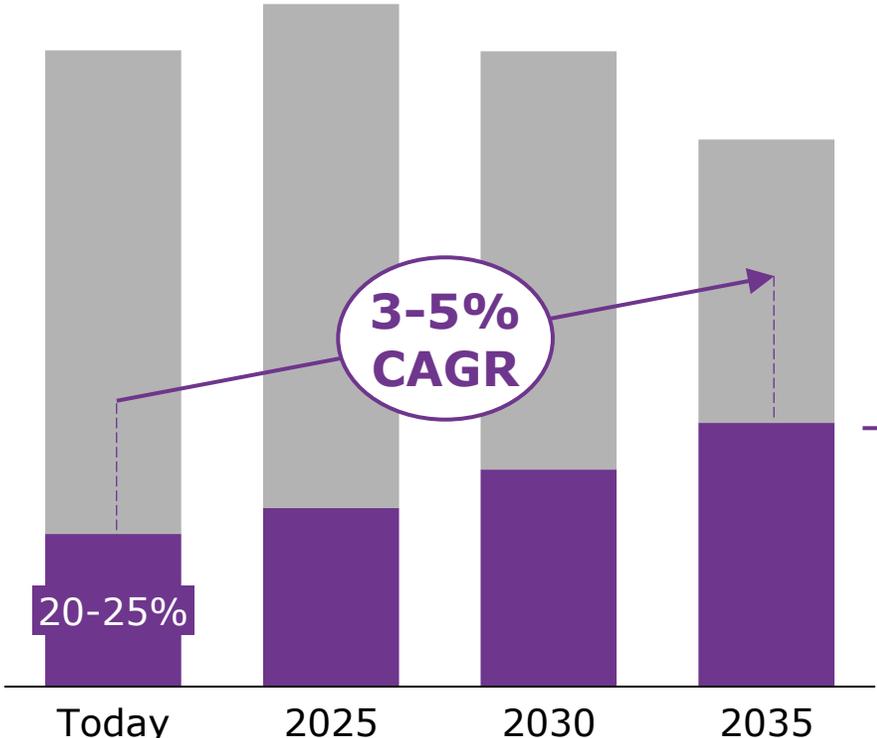
# Market demand will be sustained over the long-term due to growing demand for recycled metals

**Market supply of PGM volumes<sup>1</sup> excluding closed loop supply**

**Primary supply**  
from PGM mining,  
extraction and refining

**Secondary supply**  
from recycling PGM from  
end-of-life products

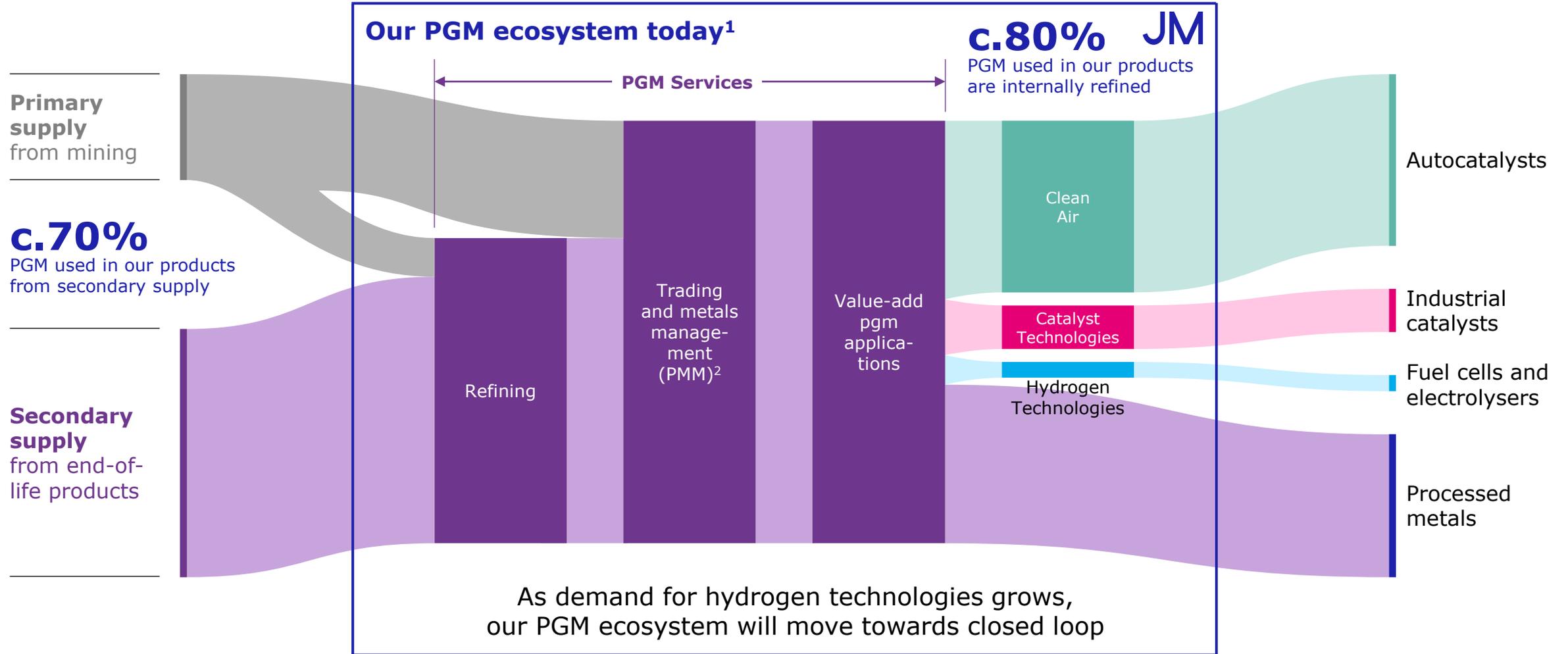
**Our main market**



**The world will continue to require PGMs** with decarbonisation trends making our **recycling business model even more relevant in the future due to:**

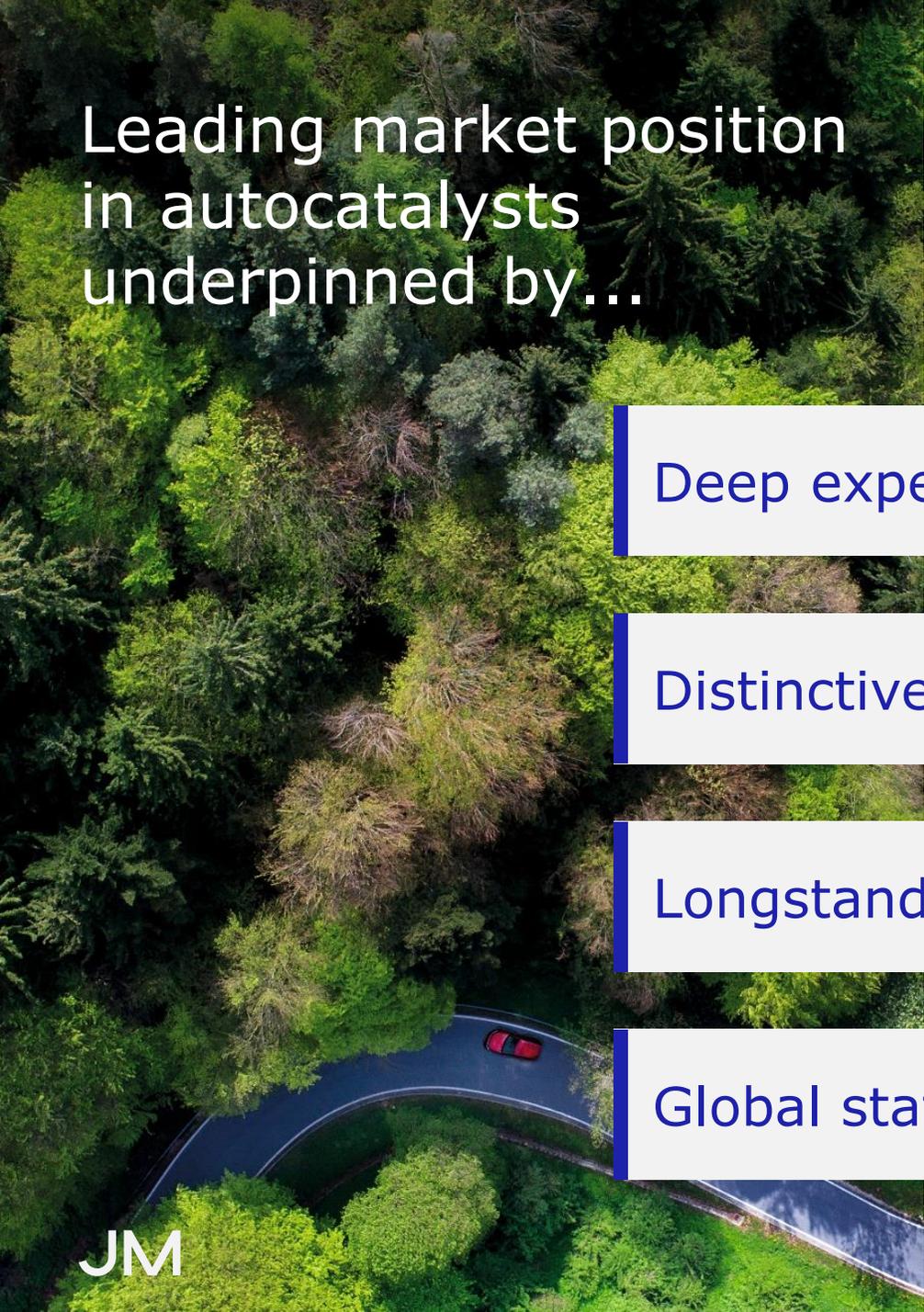
- Cost advantage
- Lower carbon content
- Trend to circularity
- Supply security

# PGM ecosystem is a key source of synergies for the group



A closer look at  
**Clean Air**



An aerial photograph of a lush green forest. A winding asphalt road curves through the trees, and a red car is visible on the road. The text is overlaid on the top left of the image.

Leading market position  
in autocatalysts  
underpinned by...

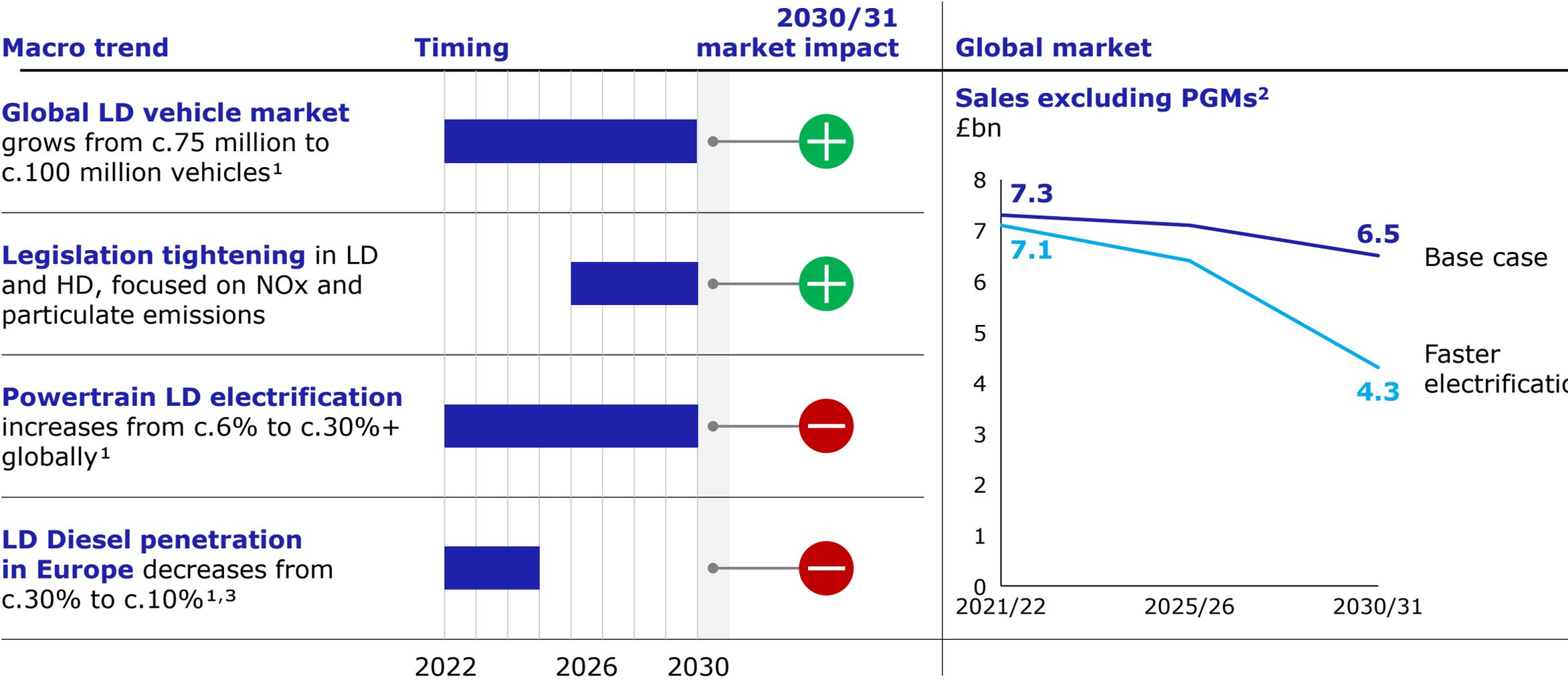
Deep expertise in complex PGM chemistry and catalysis

Distinctive technology

Longstanding relationships

Global state-of-the-art production footprint

# Clean Air is serving a durable, global market



1. JM and IHS estimates. Production of 0-6 tonnes vehicles globally in 2030.  
 2. JM estimates based on various external sources.  
 3. LD Diesel penetration in Europe of ICE vehicles.  
 Note: LD – light duty, HD – heavy duty, NOx – nitrogen oxide.

# Long-lasting cash generation with continued autocatalyst leadership and operational excellence



## Winning in a durable market

Leadership positions in LDD and HDD

Selectively targeting Euro 7 gasoline platforms



## Efficiency levers

Fixed cost base is c.£550m p.a. today

Reducing fixed costs by c.£100-200m by 2030/31



## Capital efficiency

Capex of c.£135m (average past three years)

Reducing to c.£50m by 2024/25 and c.£35m p.a. by 2030/31



## Working capital reductions

Working capital unwind as business matures; c.£2bn at 1<sup>st</sup> April 2021

Releasing c.£1.2bn cash by 2030/31 in our base case

**Delivering at least £4bn of cash by 2030/31<sup>1</sup>**

**Material business after 2030/31 with c.£2bn sales and low double-digit margins**

# We delivered on our commitments in 2021/22, with around £800m cash generated



## Winning in a durable market

Win rates in 2022/23 on track to deliver on our targets

Significant success in diesel

Strong progress on gasoline



## Efficiency levers

Good progress in plant efficiency and consolidation programme

Delivering £55m of savings in 2021/22



## Capital efficiency

Capital expenditure down to £75m in 2021/22



## Working capital reductions

Substantial reduction in working capital driven primarily by efficiency

**Around £800m cash generated in 2021/22<sup>1</sup>**  
**On track to deliver on our £4bn+ commitment**

1. £800 million of cash at actual precious metal prices, which equates to just over £600 million at constant prices (March 2021).



A closer look at  
**Catalyst  
Technologies**

# Catalyst Technologies has a well-established portfolio with c.£450m in sales

	Syngas processes				Refinery processes	
	Methanol	Ammonia	Formaldehyde	Hydrogen	FCC additives	Natural gas purification
<b>Global segment position<sup>1</sup></b>	<b>#1</b>	<b>Top 3</b>	<b>#1</b>	<b>#1</b>	<b>Top 2</b>	<b>#1</b>
<b>End applications</b>	Paints, coatings, polymers	Fertilisers	Chemicals, wood products	Transportation fuels		Natural gas
<b>Example customers and partners</b>	 > 40 yrs	 > 60 yrs	 > 50 yrs	 c.2 yrs	 > 20 yrs	
<b>Competitors</b>	<b>TOPSOE</b>	<b>CLARIANT</b>	<b>ALBEMARLE</b>	<b>GRACE</b>	<b>Air Liquide</b>	
	Syngas share of JM's CT revenues is expected to grow from c.50% today to c.70% in the next 10 years					

1. Global segment position based on market share.

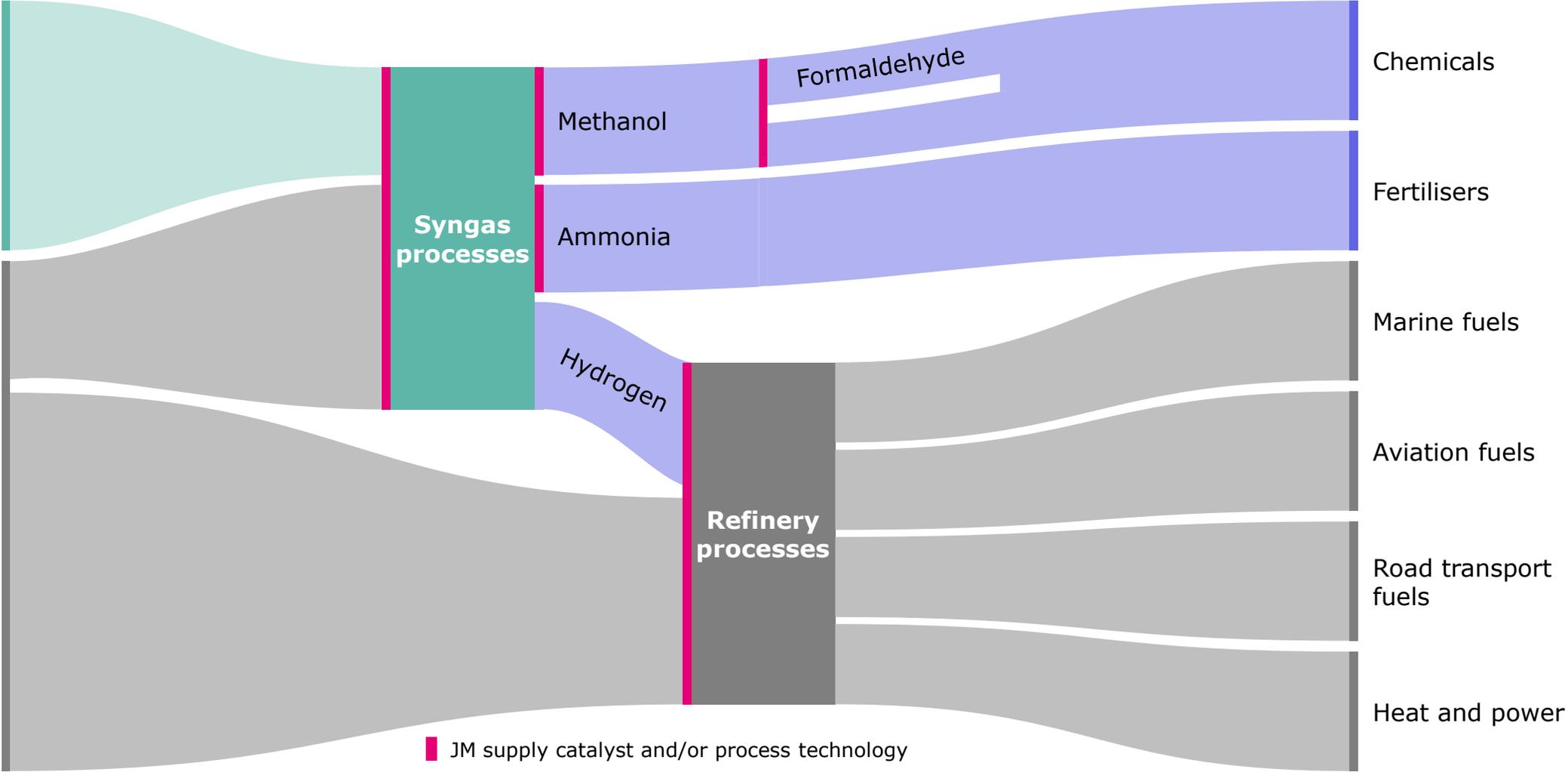
# A fundamental shift in chemicals and fuels production is taking place with syngas at its centre as the gateway to a decarbonised world

**Sustainable feedstocks:**

- Renewable energy
- Biomass and waste
- Captured CO<sub>2</sub>

**Traditional feedstocks:**

- Coal
- Natural gas
- Oil



JM supply catalyst and/or process technology

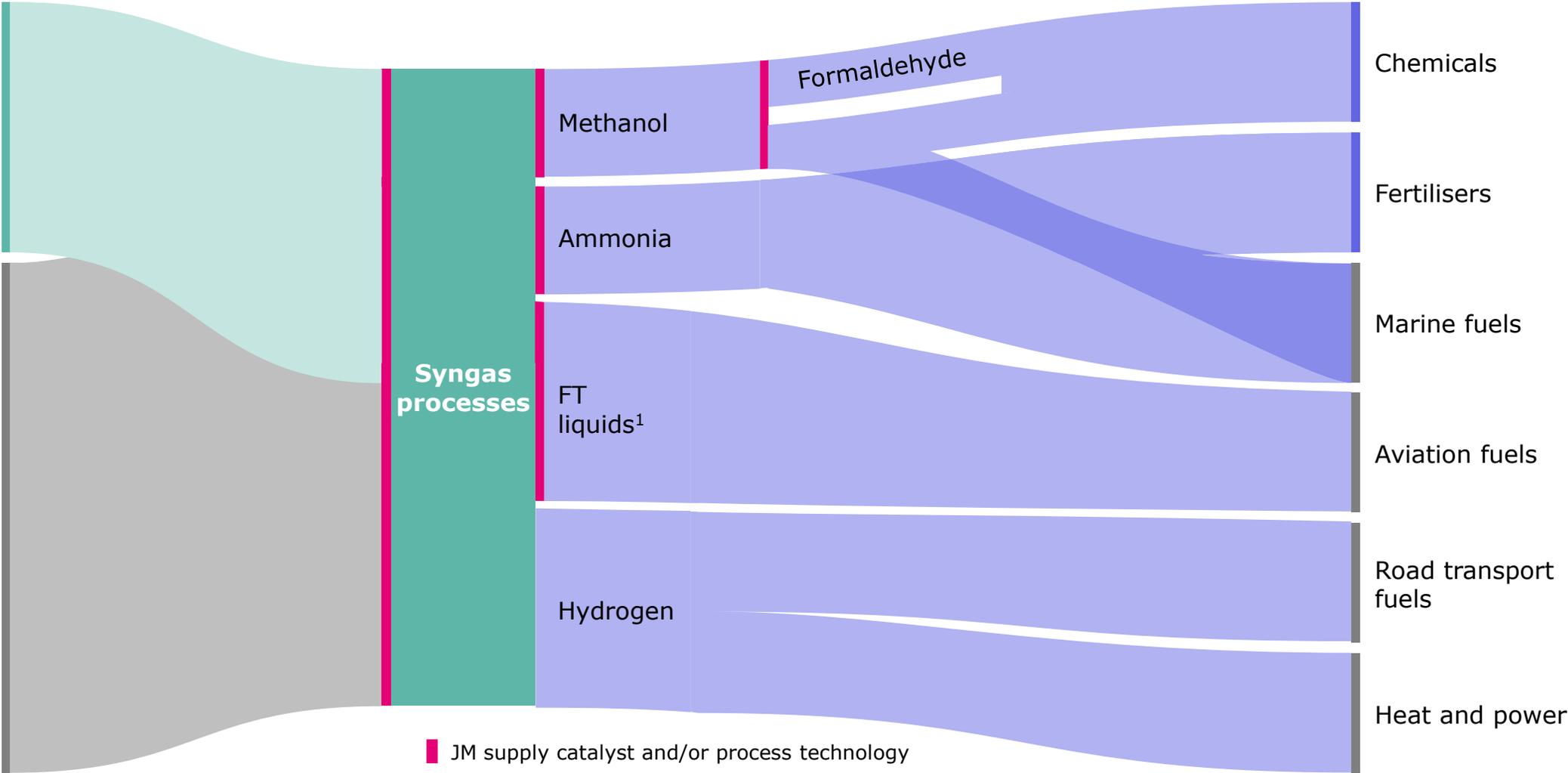
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JM supply catalyst and/or process technology

**Syngas to become the key gateway in the net zero transition as it replaces refinery processes in production of fuels, heat and power**

1. Main application of FT (Fischer Tropsch) liquids in the short-term will be aviation fuels but these could also be used for other sustainable fuels.

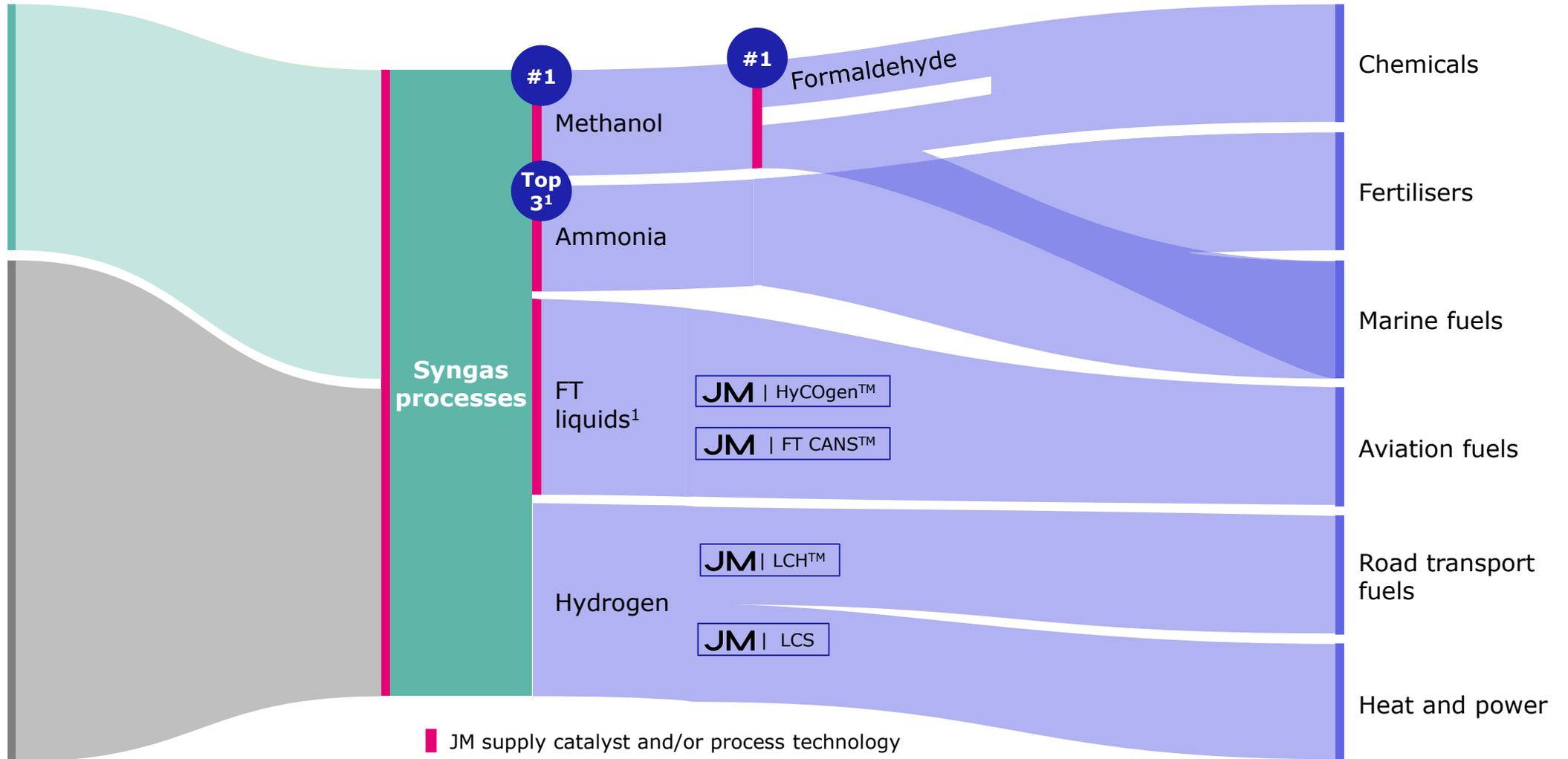
# Syngas is the key gateway in the net zero transition – we aspire to become the #1 player across the value chain

## Sustainable feedstocks:

- Renewable energy
- Biomass and waste
- Captured CO<sub>2</sub>

## Traditional feedstocks:

- Coal
- Natural gas
- Oil



1. In catalyst only.

Note: Syngas consists of H<sub>2</sub> (hydrogen), CO (carbon monoxide) and CO<sub>2</sub> (carbon dioxide). LCH™ – Low carbon hydrogen; LCS – Low carbon solutions; FT – Fischer-Tropsch; FT CANS™ – Fischer-Tropsch CANS™ (in collaboration with bp).

# Delivering high single digit growth over the medium term

Growth markets	Capacity additions by 2033 <sup>1</sup> Mtons p.a.	Number of projects by 2030 <sup>2</sup>	JM revenue per project £m	Total addressable market until 2030 £bn	Number of projects in current JM pipeline
Blue hydrogen <sup>3</sup> 	11-69	70-430	15-20 <sup>4</sup>	<b>1-8</b>	>35
Sustainable aviation fuels <sup>5</sup> 	4-8	30-60	20-35 <sup>4</sup>	<b>1-2</b>	>25
Low carbon solutions 	n.a. <sup>6</sup>	150-200 <sup>7</sup>	5-10	<b>1-2</b>	>10

1. Expected demand by 2033 determines projects by 2030.

2. Considers project size of c.160 kton per year for blue hydrogen and c.3k barrels per day for sustainable aviation fuels.

3. Only natural gas-based blue hydrogen.

4. Includes engineering, licensing and first catalyst fill – range depending on project scope.

5. Only FT-based routes for SAF (excludes alternative technology routes).

6. The opportunity in low carbon solutions is to capture over 100 mtons of CO2 per annum in grey hydrogen (Europe and North America only).

7. Includes grey hydrogen, methanol and ammonia plants suitable for retrofits.

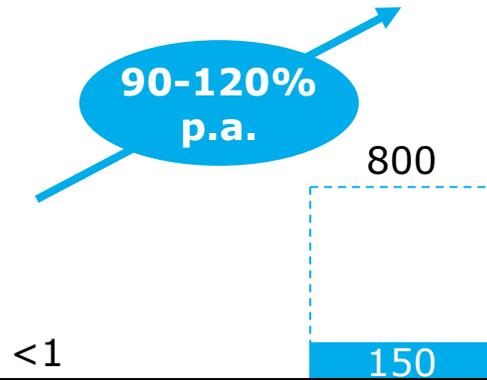
The background of the slide is a close-up photograph of numerous water droplets of various sizes on a blue surface. The droplets are in sharp focus, showing their spherical shape and the way they reflect light. The overall color palette is a range of blues, from light sky blue to deep, vibrant blue. On the left side, there is a large, semi-transparent blue circular shape that partially overlaps the text.

A closer look at  
**Hydrogen  
Technologies**

# We provide the key technologies that enable the hydrogen economy

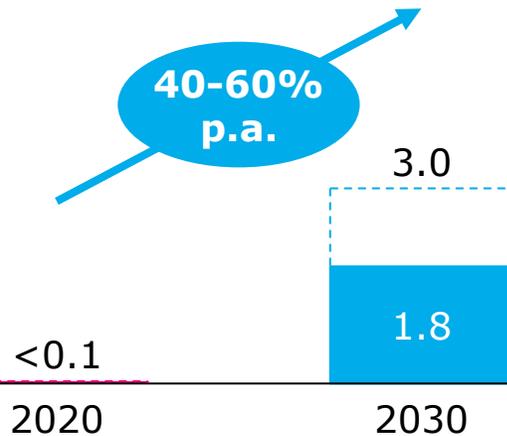
## Electrolysis

GW installed green hydrogen capacity<sup>1</sup>

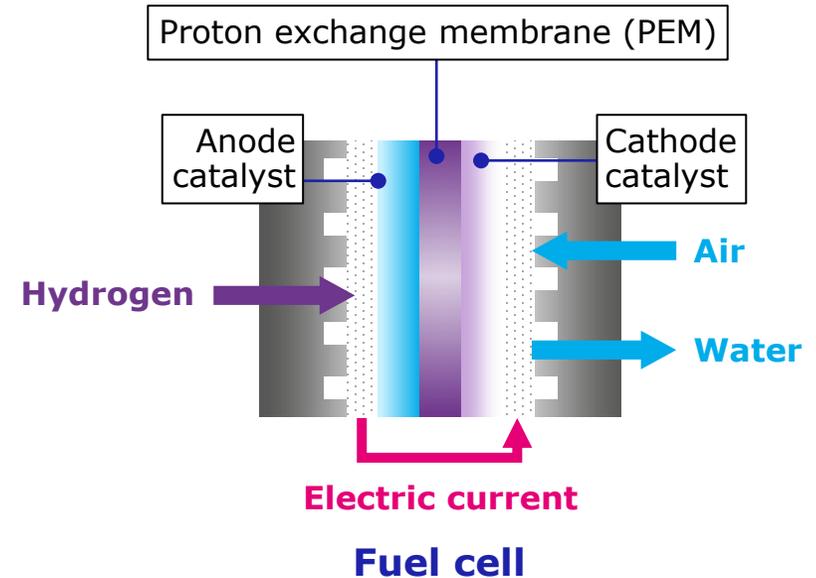


## Fuel cell vehicle market

Annual number of vehicles sold<sup>2</sup>, millions



## Catalyst coated membranes (CCM) at the heart of electrolysis and fuel cells



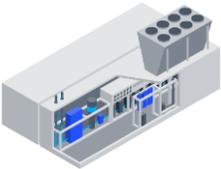
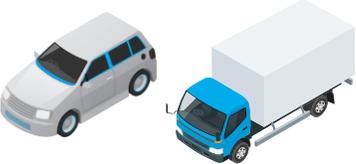
### Determining:

Durability	Efficiency
Cost	Performance

1. Upper bound is IEA Net Zero Emission scenario, lower bound is IEA Sustainable Development Scenario, grey/blue/green split in SDS is applied by JM and is not directly referenceable to IEA.

2. Upper bound is IEA Net Zero Emission scenario for light duty and Hydrogen Council for heavy duty; lower bound is Morgan Stanley for heavy duty and Hydrogen Council for light duty. Source: IEA, Hydrogen Council, Morgan Stanley.

# Significant addressable markets

	Market size to 2030	CCM value <sup>3</sup>	Cumulative addressable market to 2030 (£bn)
<p><b>CCM for electrolysis</b></p>  <p><b>150-800GW</b> Green hydrogen capacity by 2030<sup>1</sup>, of which assumed PEM<sup>4</sup> share 40%</p>		£30/kW	<b>2 - 10</b>
	Market size in 2030	CCM value <sup>3</sup>	Total addressable market in 2030 (£bn)
<p><b>CCM for fuel cells</b></p>  <p><b>1.8-3.0m</b> Sales of HDVs<sup>4</sup> and LDVs<sup>2,4</sup></p>		£1,300/vehicle	<b>2 - 4</b>

1. Upper bound is IEA Net Zero Emission scenario, lower bound is IEA Sustainable Development Scenario, grey/blue/green split in SDS is applied by JM and is not directly referenceable to IEA.  
 2. Upper bound is IEA Net Zero Emission scenario for LD and Hydrogen Council for HD; lower bound is Morgan Stanley for HD and Hydrogen Council for LD.  
 3. Excluding metal. FC: Weighted average comprising c.£2,500 per HDV and c.£1,100 per LDV. EC: US DoFE, target for 2025-2030  
 4. HDV – heavy duty vehicle, LDV – light-duty vehicle, PEM – proton exchange membrane  
 Source: IEA, Hydrogen Council, Morgan Stanley, Faurecia.

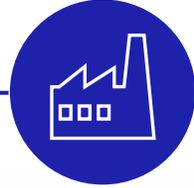
# Strong right to win in CCM...aiming for market leadership



## Long-standing experience

**>20 years'**

experience in fuel cells



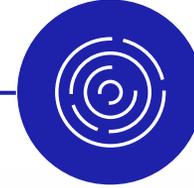
## Existing capacity and JM customers

**2 GW**

existing CCM capacity

**7 customers**

with sales of >£1m each



## Strong technology position

**c.80%**

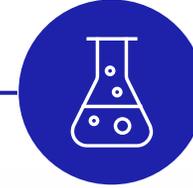
win rate in fuel cell customer qualification

**1.8W/cm<sup>2</sup>**

power density achieved in GAIA<sup>1</sup> project at 0.6V

**>400**

live patents and patent applications



## Unique expertise in metal chemistry and management

**>60 years'**

experience in catalysis

**#1**

global refined PGM supplier and secondary recycler

# Scaling capacity: Capacity expansion in line with growing customer demand

## **3 key elements for our capacity expansion plan**

---

**Building out capacity** to meet increased demand

---

**Expanding Chinese CCM** manufacturing capability in partnership

**Planning 3GW** manufacturing facility on our existing Royston site in the UK

## **UK plant expansion (Royston)**

---

### **... unlocks economies of scale**

with 3GW Royston will enable a significant drop in cost in line with external benchmarks

---

### **... is fully customer backed**

Scale-up delivers capacity for our strategic partners

---

### **... is delivered in close partnership**

with an equipment provider

---

### **... provides flexibility to almost triple capacity**

at a fraction of capex to respond to scaling market

# Customer partnerships: building on a strong position today, targeting more than £200m sales by the end of 2024/25

## Solid foundation

## Strong positions across segments, geographies and products

£25m sales in 2021/22

7 existing customers in fuel cells with sales >£1m

### Green hydrogen



### Fuel Cells



Major German auto supplier



10+ GW total customer pipeline

# Today's agenda

## **03** Capital allocation framework



# Our clear capital allocation framework will be the basis for our growth trajectory

## Sources of capital

**Operating cash flows** from Clean Air, PGM Services, and Catalyst Technologies



**Targeted divestments** to simplify and focus portfolio (>£300m)



**Efficiency and cost savings programmes** to enhance cash flows



## Priority Uses of capital

**1 Organic investments** into growth and maintenance

**2 At least maintain and aim to grow the dividend**, targeting a c.40% pay-out ratio over the medium term

**3 Inorganic investment** in bolt-on acquisitions to complement core growth businesses

**4 Return excess funds to shareholders**

**Maintaining a strong balance sheet** with target net debt/ EBITDA<sup>1</sup> of 1.5-2.0x to fund investments

1. Net debt including post tax pension deficits.

# Capital allocation will set us up for long-term growth

## We will invest in growth areas with attractive returns



**c.50%**

of the next 3 years' group capex will be spent on growth, 30% on maintenance and 20% on replacement



**Disciplined**

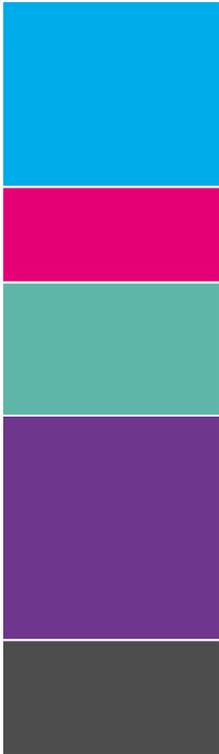
IRR investment hurdle rate on a project basis



**Modular**

deployment of capital based on execution milestones – ensuring not over committing to investment

**c.£1bn**



Hydrogen Technologies

Growth capex with larger upfront scale up investments and lower capex from the middle of the decade

Catalyst Technologies

Capital light business with low near-term investment needs but larger growth investments in the medium term

Clean Air

Decreasing capex to c.£50m by 2024/25 – shift to maintaining a solid asset base

PGM Services

Substantial replacement capex in the near-term to secure leading position; shifting towards lighter maintenance beyond 2026/27

Other

Investment in IT and maintaining technology leadership

**2022/23-2024/25  
cumulative capex**

# Transformation delivering material efficiency benefits

## Sources

Corporate functions, procurement and operations including real estate

## Timing

Benefits starting to be delivered in 2022/23, accelerating through to 2024/25

## Costs

- c.£100m through to 2024/25
- All cash

**£150m**  
annualised cost savings from new transformation by 2024/25

# Growth driven by Catalyst Technologies and Hydrogen Technologies



1. At constant precious metal prices and FX rates (2021/22 average).  
 2. Catalyst Technologies existing business refers to current business and not future growth areas.  
 3. Catalyst Technologies growth businesses: blue hydrogen, sustainable aviation fuels, and low carbon solutions.  
 4. Growth businesses: Hydrogen Technologies and Catalyst Technologies growth businesses (blue hydrogen, sustainable aviation fuels and low carbon solutions).

# Today's agenda

## 04 Next steps



# We have clear milestones until end of 2023/24

		End of:	
		2022/23	2023/24
Customers	<b>Win at least 2 large scale strategic partnerships</b> in Hydrogen Technologies	●	
	<b>Win targeted Euro 7 business and deliver on £4bn+ trajectory for Clean Air</b>		●
	<b>Win &gt;10 additional large scale projects<sup>1</sup></b>		●
Investments	<b>Expand PGM Services refining</b> capacity in China	●	
	<b>Complete construction of Hydrogen Technologies CCM plant</b> in UK <sup>2</sup>		●
	<b>Targeted capacity expansion</b> (fuel cells catalyst, formaldehyde catalyst)		●
	<b>Complete divestment</b> of Value Businesses		●
People	<b>Increase employee engagement</b> score by 1ppt in 2022/23 and 3ppt by 2023/24 <sup>3</sup>		●
Sustainability	<b>Achieve c.10% reduction</b> in scope 1+2 CO <sub>2</sub> e emissions		●
	Help customers <b>reduce CO<sub>2</sub>e emissions by &gt;1mt p.a.</b> through use of our products		●

# Creating value by catalysing the net zero transition

01

**Focus:** on where we can win, and playing to win

02

**Simplify:** leaner, more efficient processes, structure and footprint

03

**Execute:** new leadership team committed to high performance

Committed to delivering high single digit growth in underlying operating profit over the medium-term<sup>1</sup>, and strong long-term growth

# New team committed to creating value



**Liam Condon**  
Chief Executive Officer



**Stephen Oxley**  
Chief Financial Officer



**Alastair Judge**  
Chief Executive, PGM Services



**Anish Taneja**  
Chief Executive, Clean Air



**Jane Toogood**  
Chief Executive, Catalyst Technologies



**Mark Wilson**  
Chief Executive, Hydrogen Technologies



**Mark Su**  
President, China



**Annette Kelleher**  
Chief HR Officer



**Maurits van Tol**  
Chief Technology Officer



**Ron Gerrard**  
Chief EHS and Operations Officer



**Christian Günther**  
Chief Strategy and Transformation Officer



**Anne Chassagnette**  
Chief Sustainability Officer



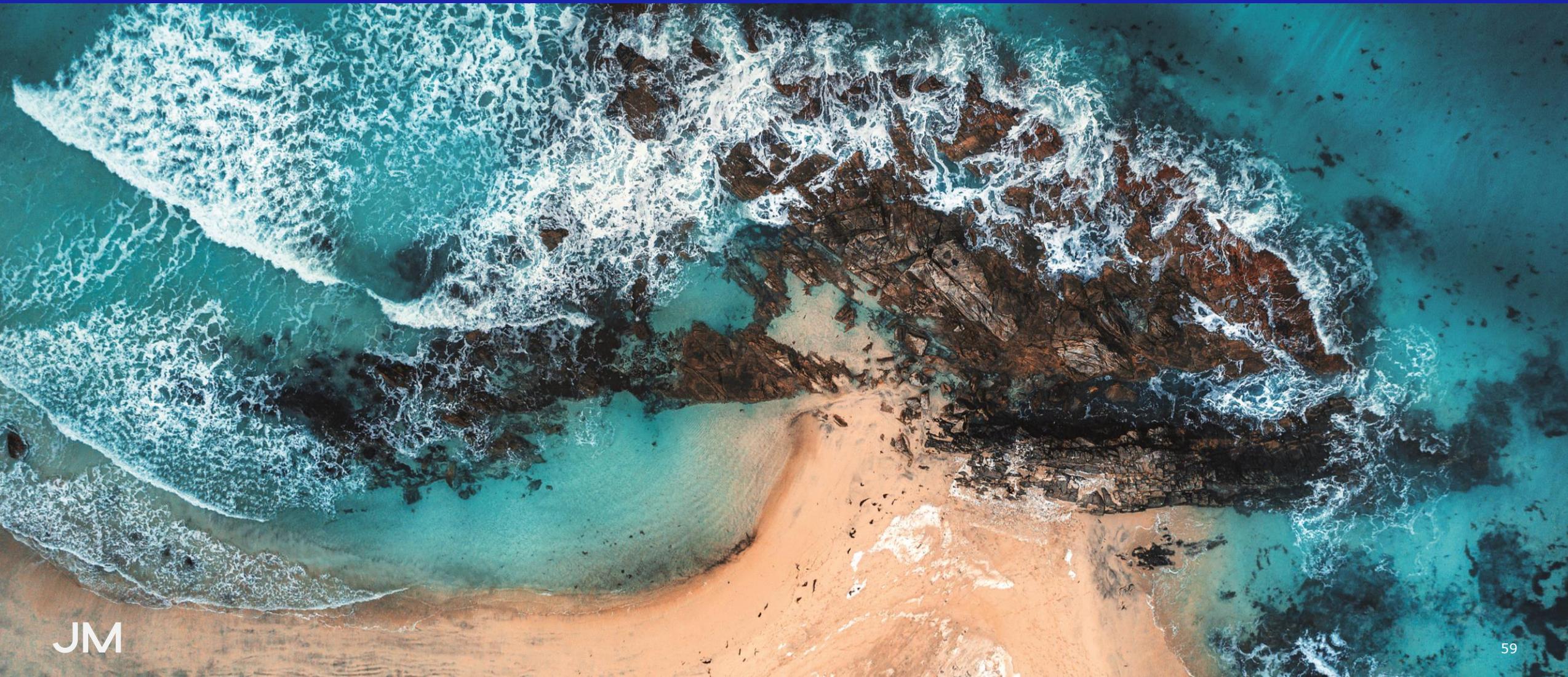
**Nick Cooper**  
General Counsel and Company Secretary

# Today's agenda

**05** Q&A

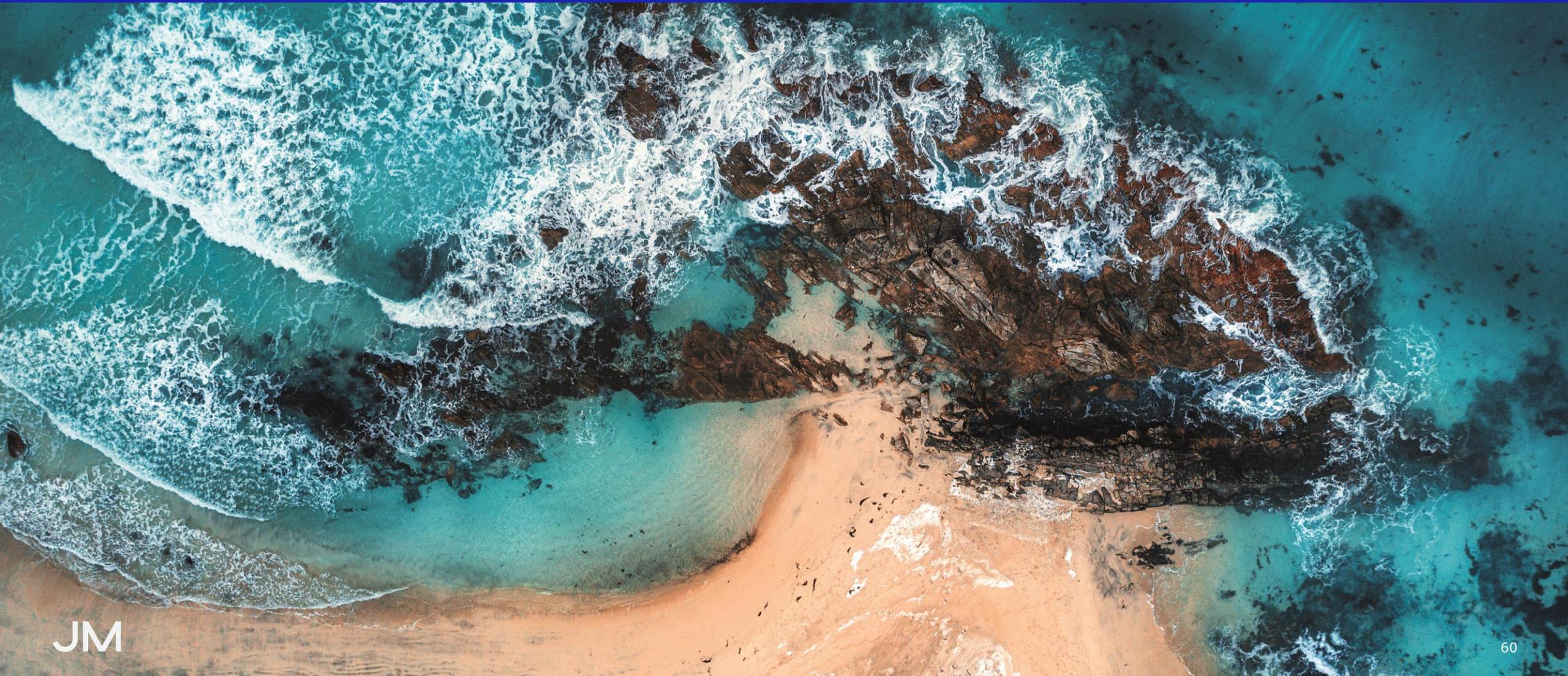


Q&A



JM

# Appendix



# Net debt to EBITDA 1.2 times<sup>1</sup>

Continuing operations	£m	£m
<b>Net debt at the beginning of the year</b>		<b>(770)</b>
Free cash flow	221	
Dividends	(136)	
Purchase of treasury shares	(155)	
<b>Movement in net debt</b>		<b>(70)</b>
Lease adjustments <sup>2</sup>		6
<b>Net debt before FX and other movements</b>		<b>(834)</b>
FX and other non-cash movements <sup>3</sup>		(22)
<b>Net debt at the end of the period</b>		<b>(856)</b>

# Light duty emissions control legislation roadmap

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Europe	EU6					EU7 (2025-27 estimated start)						
North America EPA	Tier 3 Phase in								'Tier 4' (estimated)			
North America CARB	LEV III Phase in					PM = 1mg/mi			'LEV 4'			
Japan	JP 18 (WLTP)											
South Korea (Gasoline)	LEV III (97g/km CO <sub>2</sub> , 2020)											
South Korea (Diesel)	EU6c RDE	EU6d (RDE Phase II, 97g/km CO <sub>2</sub> )					EU7 (estimated)					
China (Main economic areas)	CN6b non	CN6b non RDE	CN6b / RDE					CN7 (estimated)				
China (Nationwide)	CN5 (EU5)	CN6a										
Russia	EE5 (Euro 5)					EE6 (Euro 6)						
Brazil	PL6		PL7			PL8						
India	BSVI Stage I (EU6b)			BSVI Stage II (RDE)					BSVII (estimated)			
Indonesia (Gasoline)	EU4							EU5 (estimated)				
Indonesia (Diesel)	EU2		EU4									
Thailand	EU4				EU5 (estimated)							

# Heavy duty emissions control legislation roadmap

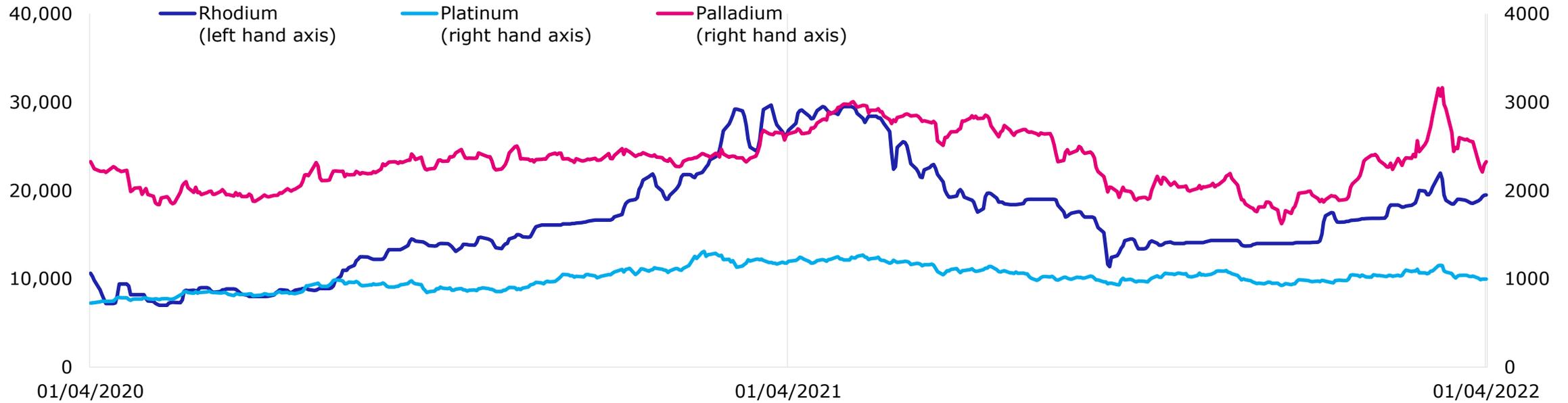
On Road	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Europe	EU VI					EU VII (2026-28 estimated start)						
North America	US 2010						EPA 2027			EPA 2031		
North America (CARB)	US 2010				CARB 2024			CARB 2027			CARB 2031	
Japan	JP 16											
South Korea	EU VI						EU VII (estimated)					
Brazil	P7		P8									
Russia	EE 5 (Euro 5)					EE 6 (Euro 6) (estimated)						
India	BS VI			BS VI RDE					BSVII (estimated)			
China	CN VIa			CN VIb				CN VII (estimated)				

## Non Road

Europe	Stage V (adoption date is engine power rating and application dependent)											
North America	Tier 4f								Tier 5 (estimated)			
Japan	MLIT 2014											
Brazil	Stage IIIa											
South Korea	Tier 4f		Stage V (estimated)									
China	Stage III			Stage IV (<560kw); timing not yet set for >560kw								
India	BT III		BT IV (Stage IV)				BT V					

# Average PGM prices

## US\$ per troy oz



Price (US\$ per troy oz)	2020/21 average	2021/22 average	Current (25 <sup>th</sup> May 2022)
Platinum	954	1,065	954
Palladium	2,248	2,396	2,014
Rhodium	14,446	18,776	15,600

# Update on Battery Materials and Health

## Battery Materials

- ▶ Sale of assets to EV Metals Group for £50m cash consideration. JM to receive minority stake in EV Metals Group
- ▶ Completed expected in summer 2022
- ▶ Total exceptional charges of up to £363m in 2021/22
- ▶ Johnson Matthey Battery Materials Canada (LFP) acquired by Nano One® for c.C\$10.25m, with completion expected by end of 2022

## Health

- ▶ Sold for consideration of £325m – JM to retain c.30% equity stake
- ▶ Recognised impairment of £242m in 2021/22
- ▶ Due to complete at the end of May

# Reporting structure changes

Underlying sales for full year ended 31 <sup>st</sup> March	2022 £m	2021 £m	% change, constant FX rates
Clean Air	2,457	2,412	+5
PGM Services	587	531	+13
Catalyst Technologies	454	443	+5
Hydrogen Technologies	25	41	-39
Value Businesses <sup>1</sup>	280	274	+8
Eliminations	(99)	(113)	
<b>Total sales (adjusted)</b>	<b>3,704</b>	<b>3,588</b>	<b>+6</b>
Adjustments <sup>2</sup>	236	334	
<b>Total sales</b>	<b>3,940</b>	<b>3,922</b>	<b>+3</b>

Underlying operating profit for full year ended 31 <sup>st</sup> March	2022 £m	2021 £m	% change, constant FX rates
Clean Air	302	269	+17
PGM Services	308	244	+28
Catalyst Technologies	50	32	+67
Hydrogen Technologies	(33)	1	n/a
Value Businesses <sup>1</sup>	18	5	+260
Corporate	(86)	(73)	
<b>Total operating profit (adjusted)</b>	<b>559</b>	<b>478</b>	<b>+21</b>
Adjustments <sup>3</sup>	(3)	26	
<b>Total operating profit</b>	<b>556</b>	<b>504</b>	<b>+14</b>

1. Value Businesses includes Battery Systems, Medical Device Components and Diagnostic Services.

2. Sales adjustments reflect removal of Health (2021/22: £162m, 2020/21: £237m), Advanced Glass Technologies (2021/22: £62m, 2020/21: £66m), Battery Materials (2021/22: £12m, 2020/21: £14m) and Other – Water and Atmosphere Control Technologies (2021/22: nil, 2020/21: £17m).

3. Underlying operating profit adjustments reflect removal of Health (2021/22: £3m, 2020/21: £31m), Advanced Glass Technologies (2021/22: £16m, 2020/21: £17m), Battery Materials (2021/22: -£22m, 2020/21: -£23m) and Other – Water and Atmosphere Control Technologies (2021/22: nil, 2020/21: £1m).

# Financial guidance summary

Group underlying operating profit growth<sup>1</sup>:

- Accelerating to high single digit over the medium-term
- Strong long-term growth

At least £4bn of cash generation in Clean Air by 2030/31<sup>2</sup>

High single digit growth in Catalyst Technologies over the medium-term

More than £200m in sales from Hydrogen Technologies by the end of 2024/25

c.£1bn cumulative capex over the next three years to 2024/25

£150m annualised cost savings 2024/2025

